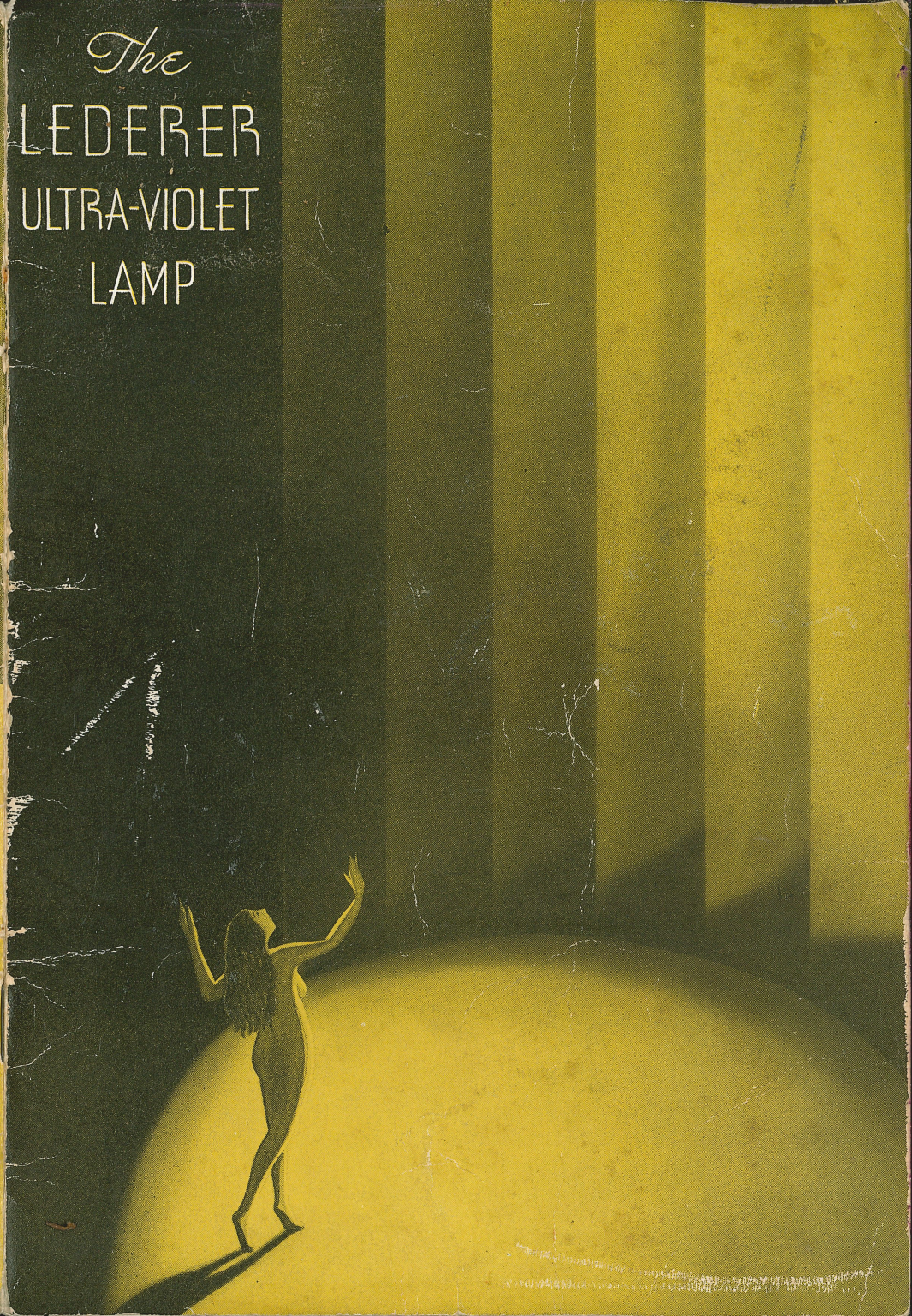
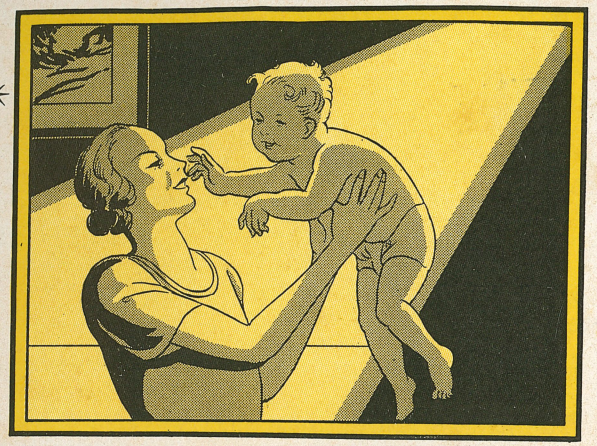
Dust and smoke are positive screens against Ultra-Violet. City dwellers in metropolitan or industrial centers pay the penalty of living in an atmosphere deficient in Ultra-Violet. Lederer Ultra-Violet Lamps not only supply this deficiency but also can be used in all cases where Vital Ultra-Violet is desired for general body irradiation.

NRA MEMBER U.S.
WE DO OUR PART

The LEDERER ULTRA-VIOLET LAMP





"Precious, it's raining again, but you wouldn't know it from your color or your appetite."

HEALTH . . . *your child's birthright*

Vital Ultra-Violet, so beneficial to building sturdy, healthy, disease-resisting youngsters, now obtainable due to the scientific achievements of Doctors Anton and E. A. Lederer.

THE LEDERER LAMP IS AS SIMPLE TO OPERATE AS ANY ELECTRICAL APPLIANCE

**Although* LEDERER ULTRA-VIOLET LAMPS *are made in both fast and medium tanning models, goggles must be worn with either type if there is any possibility of exposing the eyes to the direct rays of the lamp.* *See page six.*

A Product of

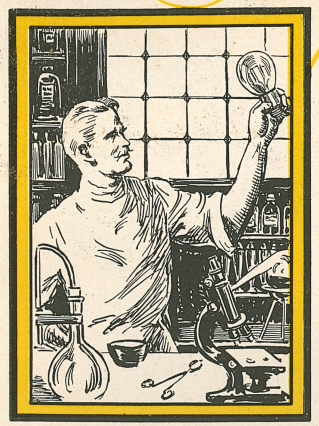
NATIONAL VITA LITE CORPORATION

Affiliated with

NATIONAL UNION RADIO CORPORATION

400 Madison Avenue, New York, N. Y.

LET



The LEDERER ULTRA-VIOLET LAMP

bring you the mystic healing properties of the sun. The marvelous new source of Vital Ultra-Violet that builds—

YOUTH • HEALTH • BEAUTY
ENERGY • STRENGTH • VITALITY

At a price all can afford

THE LEDERER ULTRA-VIOLET LAMP represents unremitting toil by two generations of scientists to achieve a reliable source of Vital Ultra-Violet; to place this source in a safe and convenient lamp bulb that requires in itself no regulation. Personal exposure is governed by time and distance from source.

If the benefits of the Lederer Ultra-Violet Lamp could be understood and appreciated by all, no home would be without one.

LEDERER ULTRA-VIOLET

The Father . . .

DR. ANTON LEDERER: Born in Prague, Austria, May 2, 1870. Died in Vienna, Austria, August 1, 1932. Graduated from University of Vienna. Held degree of Ph.D. Member of Chemical and Physical Society of Vienna, of which he held post of Chairman several years. Member of International European Society for Technical Physics. Co-inventor of Osmium lamps with Welsbach, who also designed gas mantle of same name—1898. Inventor of a gaseous discharge lamp. Research scientist with Westinghouse Lamp Works in Vienna, Austria, 1907-1921. Conducted continuous experimentation and research on rare gases, rare metals and ultra-violet sources, 1898-1932. During these years discovered ideal ultra-violet source brought to perfection in Lederer Ultra-Violet Lamps.

The Son . . .

DR. ERNEST ANTON LEDERER: Born in Prague, Austria. Educated at Vienna High School and the University of Vienna, Austria. Holds degree of Ph.D., Chemistry-Physics. Member of the Institute of Radio Engineers, Institute of Technische Physik, Germany, German Society for Television. Previous to his present connection with National Union Radio Corporation as Chief Engineer, he was with the Westinghouse Lamp Company in Vienna, Austria, and the Westinghouse Lamp Company in Bloomfield, N. J. He developed and patented various devices on Talking Movies, Gas Filled Rectifying Tubes and Radio Tubes. Perfected ideal source of ultra-violet in Lederer Ultra-Violet Lamps.

The Two Generations of Scientists Behind It

Anton read TWENTY THOUSAND LEAGUES UNDER THE SEA. Whether his parents felt that this was proper literature for a child of seven is not definitely known, but it is clear that the entire life work of Dr. Anton Lederer was influenced by the imaginative stories of Jules Verne. Verne, writing in 1860, long before the invention of incandescent lamps, described how certain adventurers lighted their way through ocean depths by lamps glowing from a gaseous discharge. Little Anton, reading the tale, years before the electric lamp, determined that some day he would make a lamp such as Verne had described.

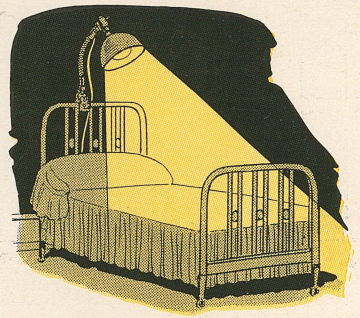
In later years Dr. Anton Lederer's interest in lamps was intensified by his acquaintance with the famous scientist, Welsbach, inventor of the gas mantle of the same name, whom he met at the University of Vienna. When he graduated from college, Dr. Lederer went to work with Welsbach, and from that time to the end of his life he experimented with lamps of one kind or another, particularly those operating on the gaseous discharge principle. His name is to be found constantly on records dealing with inventions and patents covering gaseous discharge lamps activated by electric current.

It was while carrying out the experiment with mercury arc lamps, suggested in 1895 by the English scientist, Aaron, that he discovered Ultra-Violet waves radiated under certain conditions. Dr. Lederer and other scientists discovered that these Ultra-Violet rays would pass through quartz, whereas they were stopped by all other kinds of glass then known.

As the biological needs of human beings for Ultra-Violet became better known and the limitations and requirements better established, Dr. Anton Lederer realized the necessity for a proper source of vital Ultra-Violet and went to work. The many ramifications of the hundreds of experiments conducted by Dr. Lederer, and the many disappointments incurred, would be too long for this article. Suffice it to say that Dr. Lederer had set up an ideal for his vital Ultra-Violet source and would not accept any compromise.

His knowledge of gases and discharge lamps enabled him to carry out successfully these studies where others failed, and to achieve, shortly before his death, his goal of a practical Ultra-Violet source.

It remained for his son, Dr. Ernest Anton Lederer, to arrange this work for commercial application. This was a real task in itself, inasmuch as it had to be engineered to a price that the public could pay. He picked up the threads of his father's work, he improved upon them with the fine basic material and improved manufacturing processes which radio had produced. Most important was the obtaining of correct glass. After extensive studies and tests the Lederer Lamp was ready for the world.



We feel that it is safe to say that the marvelous properties of these lamps indicate that they will play an important part in the homes of present and future generations.

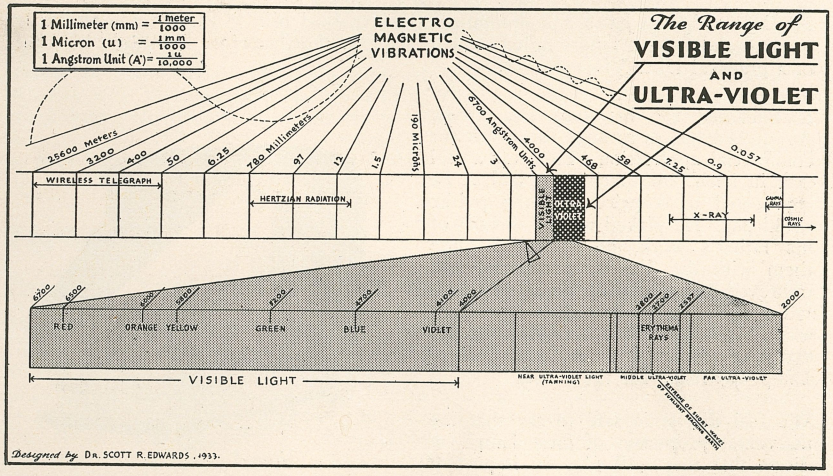
The Scientific Analysis of LEDERER ULTRA-VIOLET

Entirely new and different . . .
the ideal goal many have sought

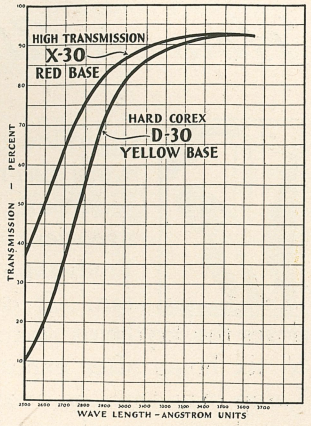
The ideal ultra-violet lamp has two functions:

(1) **To be safe and easy to handle.**
(2) **To give an adequate range and intensity of the vital ultra-violet wave lengths.**

While the Lederer Ultra-Violet Lamp in general appearance is not unlike an ordinary house lamp, it is entirely different in its inside construction and in the kind of glass from which the bulb is made. The Lederer Lamp will not operate directly from 110 volt alternating current, hence it requires a transformer to make possible its operation from the usual house current. In operation, the lamp does not get any hotter than an ordinary lamp.

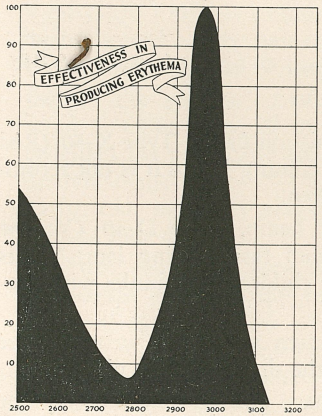


The lamp has two chemically coated electrodes. When the current is turned on there is an electronic discharge from one electrode to the other during which the electrons come in contact with mercury vapor.



At this time a strange phenomenon takes place — the mercury atom undergoes a change resulting in an Ultra-Violet radiation accompanied by a soft, pleasing, visible glow.

The Lederer Lamp is not a high pressure lamp—there is no danger of explosion—no open surface —no eye insult from harsh glare—no excess of heat. The process which produces ultra-violet waves in the Lederer Lamp does not change and is therefore a constant source of Vital Ultra-Violet during the life of the lamp. The amount of the shorter wave Ultra-Violet given off by this type of mercury lamp is controlled very largely by the thickness of the bulb and the wave length cut off of the special glass in which it is enclosed.



Wave Length in Angstrom Units Erythema Curve According to Hauser and Valle.

The charts are self-explanatory. By comparing the curves you can easily determine the taning properties and vital range of the two types of Lederer Lamps. These lamps are exactly alike mechanically except one is enclosed in HIGH TRANSMISSION GLASS and the other in HARD COREX GLASS.

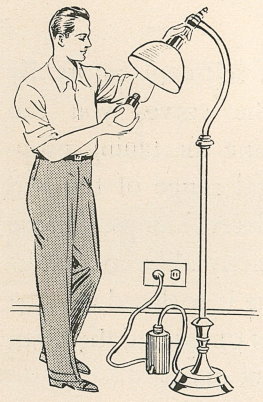
How to Use for Exposure

THE following discussion and instructions use the word ERYTHEMA. This is a medical term for the reddening of the skin resulting from stimulating agencies including Ultra-Violet exposure. This Erythema changes in a day or two to the familiar tan. It is important to note that even in large doses the Erythema or reddening effect is not apparent until two to six hours after exposure. An over exposure to the Lederer Lamp may cause an excessive Erythema which results in blisters, just the same as those which result from an overdose of Summer Sunshine. The tables of exposure given are based upon slightly perceptible Erythema several hours after exposure.

Comparison of Lederer Lamps to clearest atmosphere, mid-day, mid-summer, mid-latitude, sea level, natural sunlight:

At 2 Feet—X-30 High Transmission (Red Base)
4 times intensity of sunlight.

At 2 Feet—D-30 Hard Corex (Yellow Base)
1.8 times intensity of sunlight.



Special Instructions:

The High Transmission Lamp, Type X-30 (Red Base), is a quick tanning lamp. It is not recommended for children.

The Hard Corex Lamp, Type D-30 (Yellow Base), is a medium fast tanning lamp. It is recommended for children and adults with sensitive skin.

Exposure of children under two years of age should be under the direction of a physician.

Goggles or ordinary glasses should always be worn when using either type of lamp if there is possibility of looking directly at the ultra-violet lamp.

LEDERER ULTRA-VIOLET LAMP DOSAGE TABLE

Distance from Lamp to Nearest Skin Surface of Patient	*Approximate Time of Exposure for Perceptible Erythema Using Standard Lederer Reflector*		
	X-30 (Red Base)	*Adults D-30 (Yellow Base)*	**Children D-30 (Yellow Base)*
2 feet	5 mins.	15 mins.	10 mins.
4 feet	20 mins.	1 hour	40 mins.
6 feet	50 mins.	2½ hours	1⅔ hours
8 feet	1⅓ hours	4 hours	2⅔ hours
12 feet	3⅓ hours	10 hours	6⅔ hours

**For exposure of infants consult physician.*

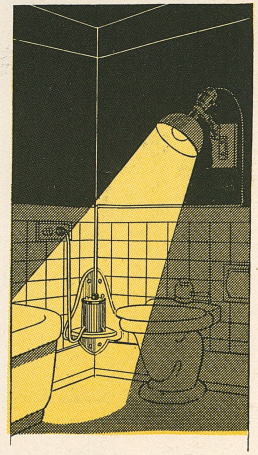
When lamps are first turned on the bulb may appear dusty or dirty. This is mercury condensation, and it will disappear in a few minutes after the lamp is turned on.

If there is any danger of falling asleep during exposure, set an alarm clock or ask someone to call you. A Timing Switch that will shut off your lamp after a given interval can also be used. This can be purchased from your dealer and is easily attached. Light from reading lamps does not interfere with the action of Lederer Ultra-Violet Lamps.

Using and Applying the Lederer Ultra-Violet Lamp

The Lederer Ultra-Violet Lamp is freely recommended as a substitute for sunshine ultra-violet, and if used daily will provide the system with an adequate amount of vital ultra-violet for general health irradiation. Both the Lederer Ultra-Violet Lamp Type X-30 and D-30 will produce erythema (sunburn). It must be remembered that different people sunburn in different periods of time and our recommendations are based on the average.

Vital Ultra-Violet is cumulative in its effect on the body, and for the best results, Lederer Ultra-Violet Lamps should be used with regularity.

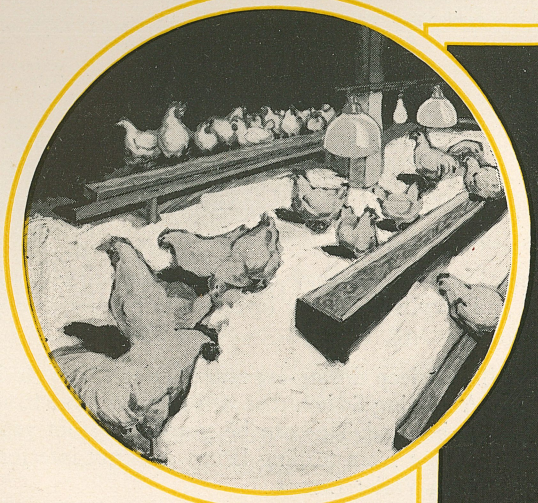


Besides the application of the Lederer kit to stand or table lamp, all the necessary parts are provided for practically any type of installation desired in the home. For special installation in bathroom, nursery, playroom or elsewhere, consult your dealer.

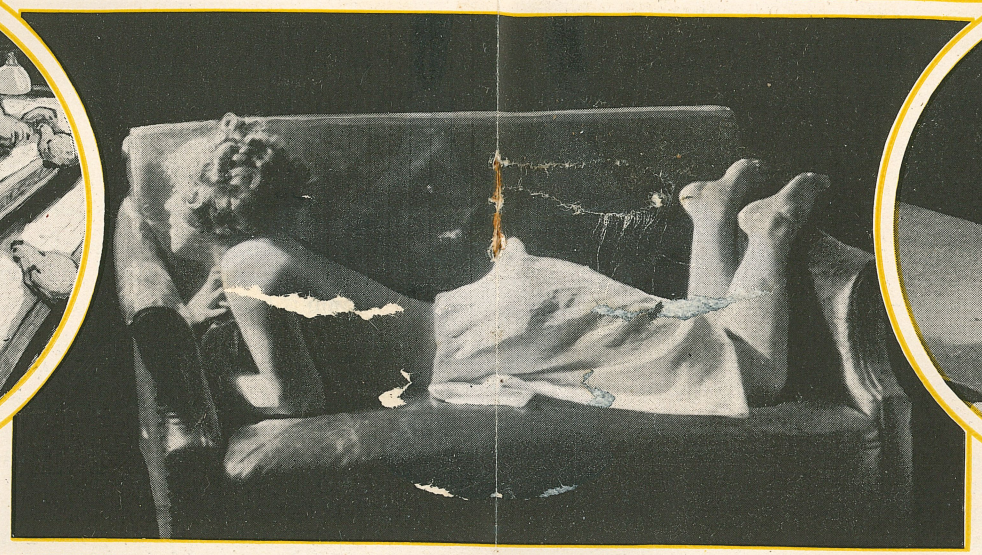
The basic distinction between the red and yellow base lamps is in the time required for tanning. The red lamp is also a stronger agent for destroying odor and killing bacteria. It is not recommended for children because of its fast action and its relatively lower wave lengths.

N. B.—For treatment of any special disease be sure to consult your physician first.

LEDERER ULTRA-VIOLET LAMPS PRODUCE VITAMIN D

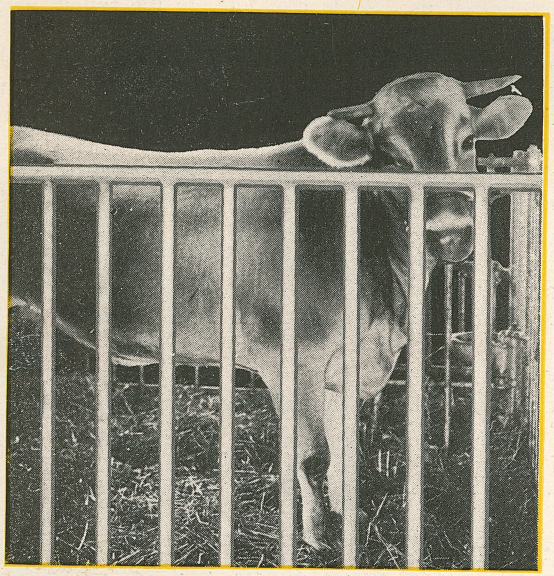


Stimulating through Ultra-Violet in the hen-house.



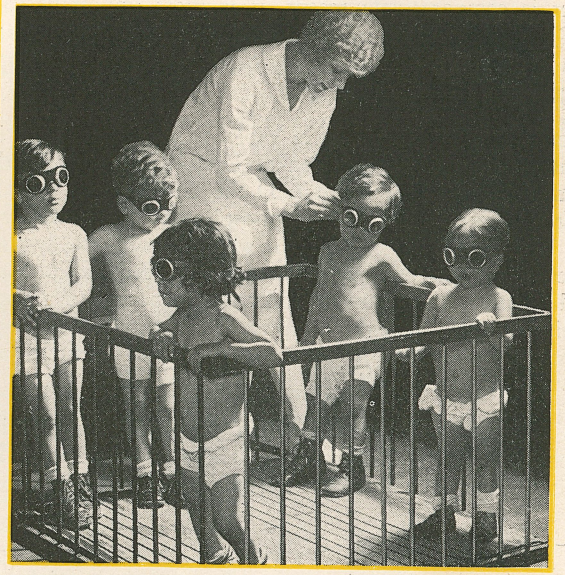
Modern beauty looks to Ultra-Violet.

Ultra-Violet helps baby grow big and strong and healthy.



Ultra-Violet experiments on cows show interesting results.

If the benefits of the Lederer Ultra-Violet Lamps could be fully appreciated by all . . . no home would be without one



The treatment of children by Ultra-Violet assumes increasing importance.

*VITAL ULTRA-VIOLET

" . . . Not only is ultra-violet radiation a necessity of modern therapy, but it is equally important today in the TREATMENT OF HEALTH, *which is the keeping of health and the prevention of disease."*

FRANCIS HOWARD HUMPHRIS, M.D.
"Artificial Sunlight and Its Therapeutic Uses." —OXFORD PRESS, [illegible]

HAVE you ever stopped to consider why you experience such a general sense of well-being when exposed to the sun's rays? Even the term, "basking in the sunlight," gives us a most pleasing sensation. Most people probably offhand think of the sun in terms of light and heat. The fact is, however, that the normal unobstructed rays of the sun, besides furnishing light and heat, go below the range of human vision into what is called ULTRA-VIOLET. Although our scientific knowledge of the sun's Ultra-Violet is comparatively recent, it is most important to realize that the sun's Ultra-Violet has existed just the same as its light and heat since the dawn of time. What part has it played in the development of human beings, plants, and animal life?

Proven scientific data on Ultra-Violet to date is startling in its significance to human welfare. The action of Ultra-Violet rays on the skin produces Vitamin D. Without Vitamin D the human body fails to assimilate the mineral elements calcium and phosphorus. Why, we don't know, but in itself Vitamin D acts as a catalyst which permits the system to absorb these elements, calcium and phosphorus. The need of these elements to every healthy human body is too well known to permit of argument. Except for its origination in sunlight, Vitamin D is pretty scantly distributed throughout nature. In practically all instances its origin is due to the effect of the sun's ultra-violet on cell life.

Even more conclusive perhaps than the production of Vitamin D through the action of Ultra-Violet is the deficiency of Vitamin D shown by lack of Ultra-Violet. Two of the most widely distributed sources of Vitamin D

*The discussion here presented has to do solely with Vital Ultra-Violet used for general exposure in lieu of sunlight. For use of ultra-violet in specific diseases consult your physician.

in natural foods are eggs and milk. Cattle and chickens in the winter eat foods that have been produced during the summer months and which have been irradiated by the summer sun. Yet milk and eggs produced in the winter months are low in Vitamin D; while milk and eggs produced in the summer months from cattle and chickens *directly* irradiated by the summer sun have greatly increased Vitamin D content.

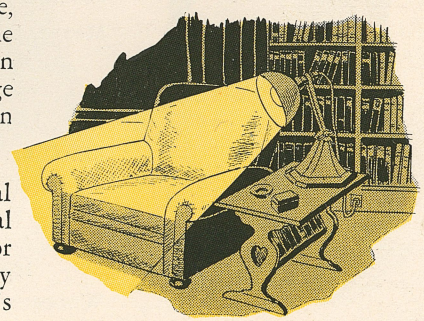
[illegible] a very widely distributed disease in child life, is largely due to [illegible] of Vitamin D, which prevents the system from absorbing calcium [illegible] phosphorus. In this case, both as a preventive and as a cure, Ultra-Violet has been proved beyond the slightest doubt to be of great value.

The effects of lack of Vitamin D upon the adult are not so easily pointed [illegible] however, there is a great army of people who at times feel greatly below par. They show no symptoms of disease but are easily fatigued, inclined to nervousness and irritability, have loss of appetite, and in general do not feel one hundred percent normal. Not a few of such cases sometimes show a deficiency of calcium and phosphorus in the blood stream.

The low ebb of illness invariably comes in the late summer months, whereas the peak of disease for the race starts rising with the fall months and reaches its highest point in late winter. Normal, healthy, disease-resisting bodies do not show any degree of deficiency in calcium and phosphorus.

But one might ask, why won't the sun supply all the Ultra-Violet that is necessary today just as it has done in the past? The answer is obvious. It would, if given the chance, but civilization has encroached on nature's ways. A great many individuals lead a routine life which practically excludes the sun. Even the demands of civilization for clothes bring about an environmental screen which almost universally reduces the human relationship with sunlight to a point far below the natural demands of the human body.

This reduction in normal Ultra-Violet is further intensified in metropolitan and industrial centers by atmospheric conditions. Fog, smoke, and dust are effective barriers to the penetration of Ultra-Violet. Even the foods grown in areas of large cities show a definite depreciation in Vitamin D content.

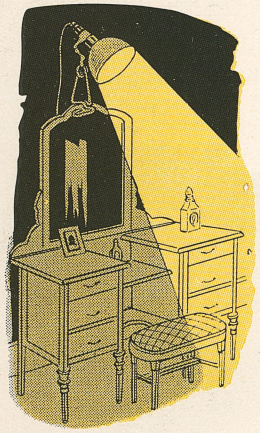


Hence the need for an artificial source of Ultra-Violet. The ideal source of artificial Ultra-Violet for general public use must adequately cover the lower range of the sun's

energy—VITAL ULTRA VIOLET, that is, from 4,000 to 2,800 angstrom units. Besides constancy of output within this range, the ideal source of Ultra Violet must answer matters of safety, economy and convenience.

The use of Ultra-Violet in the medical profession is too well established and is used too continuously to necessitate further discussion. Is it possible to place this source of energy in the hands of the layman? It must be remembered that any source of Vital Ultra-Violet can cause bad erythema (sunburn on the body) or conjunctivitis (sunburn to the eye) similar to the same effects produced by the sun. The average person, however, with the exercise of normal intelligence certainly does not suffer from the [illegible] nor with the exercise of the same degree of intelligence will [illegible] from Lederer Ultra-Violet Lamps.

Preventive medicine is engaging a great deal of attention from the public today. Many patent medicines and even foods are widely advertising unusual elements that were unknown several years ago. This is particularly true of Vitamin D, which is widely had in many different concentrates, but through daily irradiation with Lederer Ultra-Violet Lamps these can be absorbed in the system in nature's way. It is wise to remember that nature exercises no control over overdoses of Vitamin D taken internally through concentrates, but very definitely offers protection from overdoses of Vitamin D obtained from Ultra-Violet irradiation through skin reactions. First erythema, then pigmentation definitely limit Vitamin D absorption. Thus the body regulates its own requirements.



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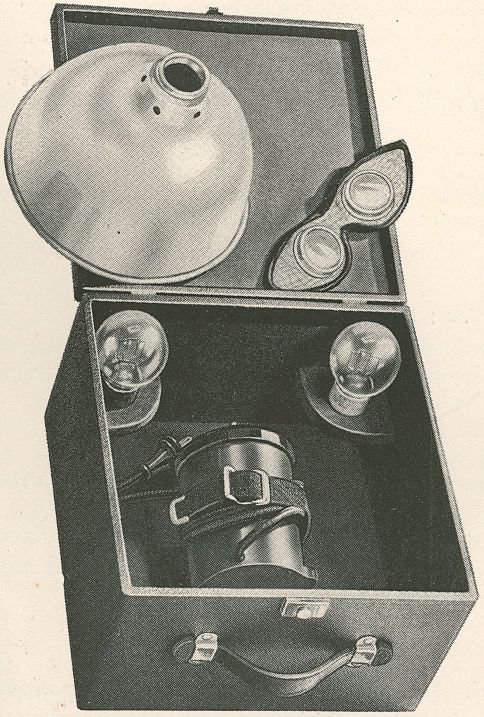
The LEDERER ULTRA-VIOLET KIT *and* PARTS

For maximum flexibility and minimum expense, Lederer equipment has been confined to only those parts vitally essential to perfect Ultra-Violet installations. The parts can be purchased separately or complete with carrying case.

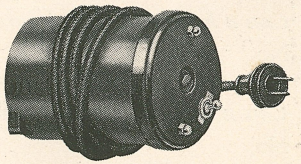
Standing lamps (bridge lamps), table lamps, and bedside lamps can readily be converted into a Lederer Ultra-Violet installation, as practically all such lamps have a standard thread on the sockets, which is also on the Lederer Reflector. This [illegible] is a necessary part of any installation, as it is especially designed for con- [illegible] Ultra-Violet wave lengths. The Lederer Type T-30 Transformer is [illegible] necessity for use in operating the lamps from 110-120 V 60 cycles [illegible] house current. Lederer Lamps cannot be operated from direct current or without Lederer T-30 Transformer.

Many special lamp stands, brackets, and holders are available for permanent or semi-permanent installation in any room of the house at moderate cost. Your dealer will gladly figure on permanent installations of beauty for nursery, playroom, bathroom, bedroom, kitchen, or other places in the home.

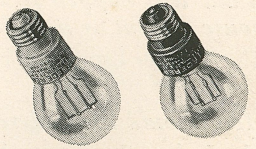
Lederer equipment is not only designed for low initial cost, but provides low operating cost. Either of the D-30 or X-30 lamps at average rates will cost less than one cent an hour in operation.



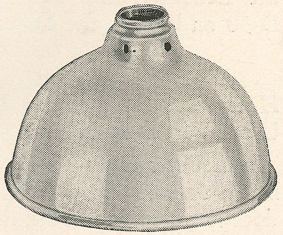
Lederer Kit Complete



Type T-30 Transformer



Type D-30 Lamp *Type X-30 Lamp*



Lederer Reflector

Goggles

Individual parts available at low cost. See your dealer.

QUESTIONS and ANSWERS

What is Ultra-Violet?

Ultra-Violet is a name given to the sun's rays generated from that particular band just below the wave length of visible light. Light and Heat from the sun come to the earth in certain wave lengths. Some of these wave lengths are visible to the human eye as light; longer wave lengths than the eye can see produce infra-red or heat energy. Wave lengths of the sun that are shorter than the human eye can see are called ULTRA-VIOLET. It is this Ultra-Violet band which has such a remarkable and mysterious effect biologically on human beings and animals, as well as vegetable matter.

What is the Lederer Ultra-Violet Lamp?

It is a source of controlled Vital Ultra-Violet that can be obtained from alternating 110-120 V 60 cycle house current.

Can a Lederer Ultra-Violet Lamp be placed in an ordinary lamp socket?

No.

Can a Lederer Ultra-Violet Lamp be used on direct house current?

No.

What will happen if a Lederer Ultra-Violet Lamp is used on direct house current or used to replace an alternating current house lamp?

The Lederer Lamp will burn out instantly and probably blow the line fuse.

How should the Lederer Ultra-Violet Lamp be used?

The Lederer Lamp uses low voltage. A Transformer must be used between the Lederer Lamp and the house line current. For the Lederer Lamps D-30 and X-30, the Lederer Transformer T-30 should be used.

How does the Lederer Ultra-Violet Lamp differ from other so-called Ultra-Violet sources?

The Lederer Ultra-Violet Lamp operates at low pressure. The Ultra-Violet band emitted closely approximates the generally accepted standard and does not change during the life of the lamp.
(Special curves and data are available to any doctor on request.)

Does the Lederer Ultra-Violet Lamp have harsh, glaring illumination?

No. These lamps emit a soft, dull glow which is very soothing.

QUESTIONS and ANSWERS

Do Lederer Ultra-Violet Lamps become unusually hot?

No. They heat up only to about the same degree as the average house light.

Is the Lederer Ultra-Violet Lamp economical?

The Lederer Ultra-Violet Lamps Types D-30 and X-30 consume approximately 30 watts. They are no more expensive, therefore, than the other 30-watt lights used in the home. It is estimated that at average rates they would cost less than a cent per hour to operate.

Is the Lederer Ultra-Violet Lamp dangerous?

No. If used in accordance with manufacturer's instructions, there is as little opportunity for harmful effect as there is from the sun.

How long will the Lederer Ultra-Violet Lamp last?

This depends upon the number of hours in use per day. It should give the average family approximately a year's service.

What is ERYTHEMA?

This is a medical term for the reddening of the skin resulting from stimulating agencies including Ultra-Violet exposure. This Erythema changes in a day or two to the familiar tan. It is important to note that even in large doses, the Erythema or reddening effect is not apparent until two to six hours after exposure.

Do all people react in the same way to Erythema?

No. The time required for producing noticeable Erythema varies a great deal among people. Some people react a great deal faster than others. Roughly speaking, dark skins do not react as readily as light skins.

Are goggles necessary?

With any source of Ultra-Violet it is possible, if the eyes are exposed to the direct rays, to produce a condition in the eye called conjunctivitis analagous to erythema on the skin. For this reason we recommend that goggles always be worn when exposed to the Lederer Ultra-Violet Lamps. This is the safer practice.

QUESTIONS and ANSWERS

How are the good effects of Ultra-Violet produced?

They are produced by the action of Ultra-Violet rays on the constant skin component ergosterol. This action produces Vitamin D, which is then diffused through the body.

How much of the body should be exposed at a time?

Roughly speaking, the more skin surface exposed, the greater the Vitamin action. For all practical purposes, however, exposure of one-third of the body is considered to suffice.

Can general illuminating lamps be lighted while exposing to Ultra-Violet and will this interfere with Ultra-Violet rays?

Light rays from illuminating lamps do not interfere with Ultra-Violet. For beneficial effects, the skin must be exposed to the Ultra-Violet ray. Other light rays do not prevent penetration of Ultra-Violet. Practically any substance, however, such as an article of clothing, if not porous, is an effective screen against Ultra-Violet.

Will the Lederer Ultra-Violet Lamp destroy bacteria?

It is a valuable germicidal agent. It may be used for sterilizing the atmosphere, or for deodorizing.

For what purpose is the Lederer Ultra-Violet Lamp recommended?

In general for all purposes where sunshine ultra-violet is desired. Specifically, the Lederer Ultra-Violet Lamp is recommended as a sunshine substitute to provide vital Ultra-Violet.

Is there any timing device which can be used to regulate automatically the amount of exposure desired with the Lederer Ultra-Violet Lamp?

Yes. There are several types of satisfactory timing devices which will regulate time of exposure from as low as several minutes to several hours. Ask your dealer.

Do not use for treatment of special diseases without consulting your physician. (Special data, curves and technical information available to doctors on request.)

ULTRA-VIOLET BRIEFS

It is estimated that the amount of Ultra-Violet reaching the earth's surface from a mid-day summer sun is a thousand percent greater than the Ultra-Violet reaching the earth's surface from a mid-day winter sun.

Ultra-Violet is a valuable germicidal agent. The Lederer Ultra-Violet Lamp left on in the nursery will do much to destroy bacteria in the atmosphere. It can also be used to irradiate babies' clothing, bed clothing, or other articles where it is not possible or practical to expose them to the sun.

Ultra-Violet rays act on the constant component of the skin ergosterol to produce Vitamin D. This is absorbed in the system and diffused through the body. Many authorities consider much of winter's increased sickness due to a lowering of body resistance. Vitamin D is a strong factor in building body resistance.

Lederer Ultra-Violet Lamps are ideal sources of Vital Ultra-Violet. They are recommended freely as a substitute for ultra-violet of the sun in general body irradiation. Do not use for treatment of special diseases without consulting your physician. (Special data, curves, and technical information available to doctors on request.)

Ultra-Violet promises to play an increasingly important part in the civilized world. More and more will be known definitely of its results as time goes on. Even today there is strong evidence that the glands of internal secretion govern personality, and experimental evidence already accumulated corroborates the fact that the primary energy of the sun is intimately a part of normal gland secretion.

Nature protects against overdose of Vitamin D from ultra-violet by skin reaction, first an erythema, then pigmentation limit the amount of ergosterol and thus provide a factor of safety. This is not true of Vitamin D taken internally through concentrates. Lederer Ultra-Violet Lamps used as instructed cannot cause any more bodily harm than can the sun.

DOSAGE TABLE—CAUTIONS

LEDERER ULTRA VIOLET LAMP DOSAGE TABLE

Approximate Time of Exposure for Perceptible Erythema Using Standard Lederer Reflector

Distance from Lamp to Nearest Skin Surface of Patient	*X-30 (Red Base)*	*Adults D-30 (Yellow Base)*	**Children D-30 (Yellow Base)*
2 feet	5 min.	15 min.	10 min.
4 feet	20 min.	1 hour	40 min.
6 feet	50 min.	2½ hours	1⅔ hours
8 feet	1⅓ hours	4 hours	2⅔ hours
12 feet	3⅓ hours	10 hours	6⅔ hours

**For exposure of infants consult physician.*

Type X-30—4 times strength of sunlight at 2 feet
Type D-30—1.8 times strength of sunlight at 2 feet

CAUTIONS

The High Transmission Lamp Type X-30 (Red Base) is a quick tanning lamp. It is not recommended for children.

* * *

The Hard Corex Lamp Type D-30 (Yellow Base) is a medium fast tanning lamp. It is recommended for children and adults with sensitive skin.

* * *

Exposure of children under two years of age should be under the direction of a physician.

* * *

Goggles or ordinary glasses should always be worn when using either type of lamp if there is possibility of looking directly at the ultra-violet lamp.

* * *

When lamps are first turned on the bulb may appear dusty or dirty. This is internal condensation, and it will disappear in a few minutes after the lamp is turned on.

* * *

If there is any danger of falling asleep during exposure, set an alarm clock or ask someone to call you. A Timing Switch that will shut off your lamp after a given interval can also be used. This can be purchased from your dealer and is easily attached. Light from reading lamps does not interfere with the action of Lederer Ultra-Violet Lamps.

FOR TREATMENT OF SPECIAL DISEASES CONSULT YOUR DOCTOR!

ULTRA-VIOLET BRIEFS

It is estimated that the amount of Ultra Violet reaching the earth's surface from a mid-day summer sun is a thousand percent greater than the Ultra-Violet reaching the earth's surface from a mid-day winter sun.

* * *

Many authorities consider much of winter's increased sickness due to a lowering of body resistance. Vital Ultra-Violet produces Vitamin D—a strong factor in building body resistance.

* * *

Ultra-Violet Rays act on the constant component of the skin ergosterol to produce Vitamin D. This is absorbed in the system and diffused through the body. Relatively speaking, the larger the skin area exposed to Ultra-Violet the more Vitamin D produced. However, since the Vitamin D is absorbed in the system and diffused, one-third exposure of the whole body is considered sufficient.

* * *

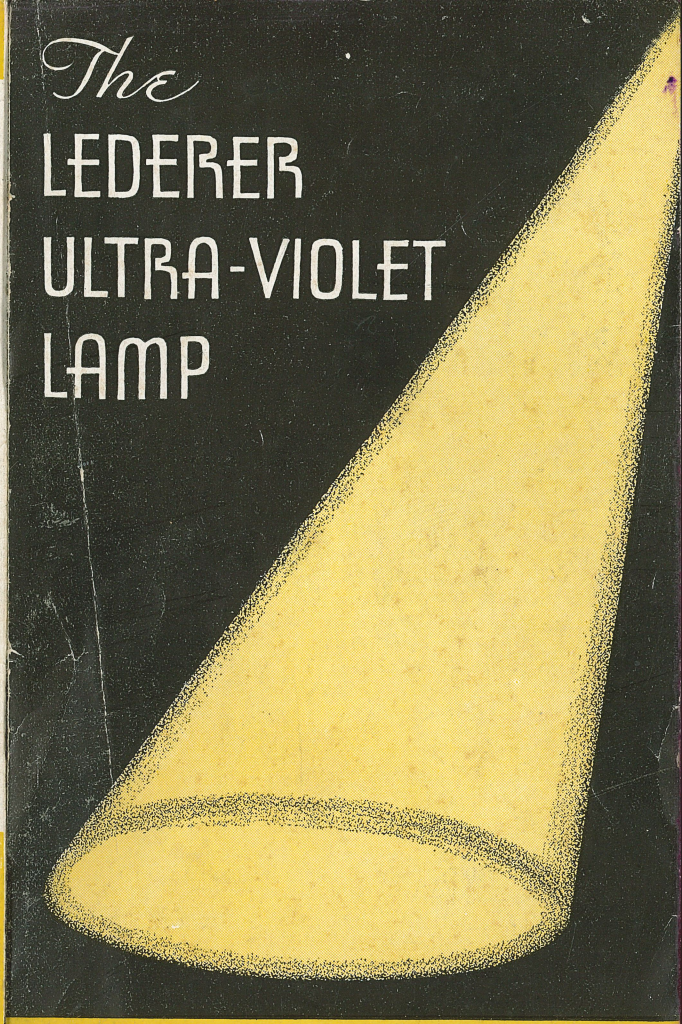
Lederer Ultra-Violet Lamps are ideal sources of Vital Ultra-Violet. They are recommended freely as a substitute for ultra violet of the sun in general body irradiation. Do not use for treatment of special diseases without consulting your physician. (Special data, curves, and technical information available to doctors on request.)

* * *

Nature protects against overdose of Vitamin D from ultra violet by skin reaction, first an erythema then pigmentation limit the amount of ergosterol and thus provide a factor of safety. This is not true of Vitamin D taken internally through concentrates. Lederer Ultra-Violet Lamps used as instructed cannot cause any more bodily harm than can the sun.

Let Lederer Lamps bring you Summer's Ultra-Violet all year round through Winter, fog and rainy weather.

The LEDERER ULTRA-VIOLET LAMP



If the benefits of the Lederer Ultra-Violet Lamp could be fully appreciated by all . . . no home would be without one.

The LEDERER ULTRA-VIOLET LAMP

Two Generations of Scientists

DR. ANTON LEDERER

DR. ERNEST ANTON LEDERER

These lamps are the result of unremitting toil by two generations of scientists. Experiments and tests begun in 1910 by Dr. Anton Lederer in Vienna, Austria, are brought to a successful conclusion in 1933 by his son, Dr. Ernest Anton Lederer, Chief Engineer of the National Union Radio Corporation.

The Lederer Ultra-Violet Lamps hail a new era in ultra-violet for the home by providing you with an **ideal** artificial source of vital Ultra-Violet.

At Last Here Are Ultra-Violet Lamps that Fulfill These Ideals

UNVARYING VITAL RANGE: The vital range of Ultra-Violet wave lengths necessary for effectual irradiation is produced in Lederer Lamps. The range emitted is constant, and does not change during the life of the lamp.

SAFETY: No open burning parts, no terrific heat.

ECONOMICAL OPERATION: Low power consumption. Cost only about the same as a 30 watt house lamp to operate.

SOOTHING LIGHT: Lederer Lamps burn with a soft pleasing glow—no harsh irritating glare.

LOW INITIAL COST: The low cost of Lederer equipment brings Vital Ultra-Violet within the reach of everyone. The necessary parts to change over a desk lamp or a standing lamp are available either separately or completely assembled in a portable kit.

In this enlightened era most people are coming to realize Ultra-Violet irradiation is important in the treatment of health, that is, the keeping of health and the prevention of disease.

Brings the mystic healing properties of the sun

Individual parts can be purchased separately for permanent or semi permanent installations. Many types of sockets, clamps and lamp stands are available at moderate cost. Ask your dealer.

$23.50 COMPLETE

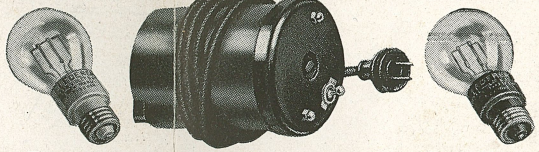
LEDERER ULTRA-VIOLET EQUIPMENT

X-30 Lamp: Fast tanning.

D-30 Lamp: Medium fast tanning.

Lederer Reflector: Necessary to correct concentration of Ultra-Violet Waves.

Lamps operate only on 110 volts—60 cycles alternating house current fed through Lederer type T-30 transformer. Don't use on D. C. current or without transformer.

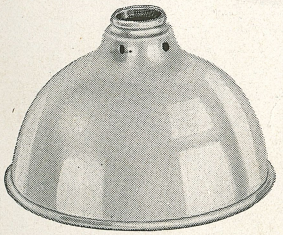


Type D-30 Lamp—$3.75

Type T-30 Transformer—$10.00

Type X-30 Lamp—$4.75

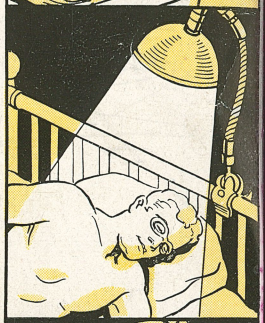
Carrying Case $6.00

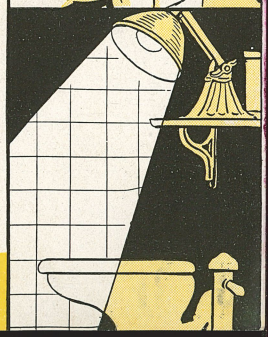


Lederer Reflector—$2.00

Goggles—$0.40

Prices slightly higher west of the Rockies





A product of **NATIONAL VITA LITE CORPORATION** *affiliated with* **NATIONAL UNION RADIO CORPORATION**

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